

**Commonwealth of Kentucky**  
**Division for Air Quality**  
**FINAL PERMIT STATEMENT OF BASIS**

CONDITIONAL MAJOR PERMIT NO. F-04-026 (REVISION 2)

INTERNATIONAL CRANKSHAFT INC.

GEORGETOWN, KY 40324

MARCH 7, 2007

RITA ARGUELLO, REVIEWER

PLANT I.D. # 21-209-00039

APPLICATION LOG # APE20070001

AI# 3910

**REVISION 2:**

International Crankshaft Inc. (ICI) has requested a minor revision to the conditional major permit to expand the facility in Georgetown, Kentucky facility. The expansion scope includes an installation of a new forging line, Die Forging Process Line #3, upgrading the capacity of the forging line auxiliary equipment, minor upgrade of the existing equipment, and rearrangement of the equipment layout for accommodating Line #3 equipment and to improve the process flow.

The Potential to Emit of criteria pollutants caused by the changes is below 250 TPY and ICI is able to keep the limit they take for PM emissions, which is 90 TPY. Hence, these changes are qualified as minor revisions pursuant to 401 KAR 52:030, Section 14.

**The new line will include:**

Emission Points 05-02, Line #3 Main Press and 05-05, Line #3 Shot Blast Machine in Section B and several insignificant activities: EP 05-01, Line#3 Die Forging, EP 05-03, Die Pre-Heater, EP 05-04, Line#3 Patrol Inspection Shot Blast Machine, EP 05-06 Line#3 Magnetizer Operation, and EP 05-07 Line#3 Rust Prevention Operation, etc.

Since the control efficiency of the scrubber used for controlling PM/PM10 emissions from EP5 is critical to assure that ICI can meet source-wide PM/PM10 emissions of 90 TPY, one stack test for PM/PM10 to determine the removal efficiency of the scrubber for EP5 has been required as specified in Section G (4) & (5) in the permit.

**Existing Emission Point 01-03:**

Increase production rate in Rougher EDMs from 2.568 lb/hr to 8 lb/hr of oil usage.

Increase production rate of Die Blocks from 0.167 ton/hr to 0.40 ton/hr.

**REVISION 1:**

International Crankshaft has requested a minor revision to the conditional major permit to incorporate the addition of two insignificant activities at their facility located in Georgetown, Kentucky, as well as to delete the two existing shot blasters in the Mini Inspections Area that will be removed in September 2006 and to correct typographical errors in the current permit.

On page 8 of 21, in Section C – Insignificant activities, the applicable regulation for Natural Gas-Fired Space Heaters should be “None” and for Die Reworking Area-MIG and TIG Welding Units the applicable regulation should be “401 KAR 59:010”. Page 8 of 21 in Section C, the company has requested to add the new Mini Inspection Area Tumbler shot blaster and a new bar coding system with applicable regulation 401 KAR 59:010 and 401 KAR 59:225 respectively.

The Emission Point 04-03 is deleted and the list of Insignificant Activities is increased by two new points:

1. Bar Coding System
2. Tumbler Shot Blaster

All the corrections on Insignificant Activities page were made as requested by International Crankshaft.

**ORIGINAL ISSUANCE (APPLICATION LOG# 56420):**

On July 30, 2004, the Division issued a preliminary determination on the Draft Conditional Major permit for International Crankshaft Inc, Georgetown, Kentucky. This permit was made available for public review and comment. The public comment period for this action ended on October 29, 2004. The Division's response to all comments received is attached in a separate document. Significant changes to the permit are described below.

In conclusion, a thorough analysis has been made of all relevant information available that pertains to this source. The Division has concluded that compliance with the terms of the permit will ensure compliance with all air quality requirements. Therefore, it is the Division's determination that a final Conditional Major permit should be issued as conditioned. With this issuance, all open permit applications have now been addressed. Any modifications must be submitted in their entirety to be considered for review.

**EMISSION AND OPERATING CAPS DESCRIPTION:**

1. Total particulate emissions from the entire source shall not exceed 90 tons/year.
2. Individual HAP emissions from this source shall be less than 9.0 tons/year based on a 12-month rolling total.
3. Plant-wide total HAP emissions from this source shall be less than 22.5 tons/year based on a 12-month rolling total.

**Regulation applicable:**

401 KAR 52:030 Federally enforceable permits for nonmajor sources.

401 KAR 59:010 New process operations.

**SIGNIFICANT CHANGES TO INDIVIDUAL UNIT, OPERATION OR ACTIVITY EMISSION AND OPERATING CAPS:**

Emission points 02-01 and 03-02 were moved to the insignificant activities list.

A requirement is added to check the scrubber nozzles at each scrubber on a weekly basis.

**SIGNIFICANT CHANGES TO PLANT-WIDE EMISSION AND OPERATING CAPS:**

None

**DETAILED UNIT DESCRIPTIONS AND BASIS FOR SIGNIFICANT CHANGES TO DRAFT PERMIT:**

None

**CREDIBLE EVIDENCE:**

This permit contains provisions, which require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has only adopted the provisions of 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12 into its air quality regulations.

**ATTACHMENT A**  
**Response to Comments:**

Permit Application Summary Form

*Company Comment #1:*

The potential emissions of NO<sub>x</sub> in the emissions summary table should equal the actual emissions, which is 0.45 tpy, not 0.045 tpy as indicated.

*Response:*

Link Shumaker conversed with Eugie Mintu on this comment and determined that 0.045 tpy reflects the correct emissions.

Draft Statement of Basis

*Company Comment #2:*

**General Source Description:** There are several typographical errors in the general source description. Please make the following changes: “Steel billets are shipped to the plant where they are cut by dry saw, melted by an electric induction heater, ... The forged crankshafts dies cooled, ... ICI also manufactures dies. The process consists of graphite milling a .... die block milling, ...”

*Response:*

The Division concurs and has made the changes in the permit.

*Company Comment #3:*

**Detailed Unit Descriptions and Basis for Permit Conditions:** The unit descriptions should be identical to that under Section B of the Final Permit. Please see the following comments for corrections.

*Response:*

The Division concurs and has made the changes in the permit.

Draft Permit:

*Company Comment #4:*

**Section B, Group Requirements – Line #1 Die Forging (Page 4 of 22):** As Emission Point 02-01 – Die Forging is listed in the insignificant activities, please remove it from Section B.

*Response:*

The Division concurs and has made the changes in the permit.

*Company Comment #5:*

**Section B, Group Requirements – Line #1 Die Forging (Page 4 of 22):** [Comment regards a modification to Emission Point 02-01. This comment is omitted as the point has been moved to the insignificant activities list.]

*Company Comment #6:*

**Section B, Group Requirements – Line #2 Die Forging (Page 5 of 22):** As Emission Point 03-02 – Die Forging is listed in the insignificant activities, please remove it from Section B.

*Response:*

The Division concurs and has made the changes in the permit.

*Company Comment #7:*

**Section B, Group Requirements – Line #1 Die Forging (Page 5 of 22):** [Comment regards a modification to Emission Point 03-02. This comment is omitted as the point has been moved to the insignificant activities list.]

*Company Comment #8:*

**Section B, 4.a.i and ii Specific Monitoring Requirements (Page 7 of 22):** It is requested that the monitoring frequency for throughput and hours of operation in Section B, 4.a.i and ii be changed from daily to monthly. It is expected that this revision will lessen the burden of record keeping and at the same time provide reasonable assurance that particulate emission limitations are being met.

*Response:*

The Division concurs and has made the changes in the permit.

*Company Comment #9:*

**Section B, 4.c Specific Monitoring Requirements (Page 7 of 22):** Please change the Section B, 4.c requirements to: “Once per month the permittee shall survey the emission unit for visible emissions from stacks or vents exiting the facility building and maintain a log of observations.”

*Response:*

The Division partly agrees. The requirement is changed and will be listed in Section B, 4.c as follows, “Once per day the permittee shall survey the emission unit for visible emissions from stacks or vents exiting the facility building and maintain a log of observations.” The Division also wants to clarify that this requirement is to do a qualitative observation, and requires doing Method 9 reading only when visible emissions are observed.

*Company Comment #10:*

**Section B, 5.a and b Specific Recordkeeping Requirements (Page 8 of 22):** Similar to comment #8, it is requested that the recordkeeping frequency for throughput and hours of operation for emission sources be changed from daily to monthly.

*Response:*

The Division concurs and has made the changes in the permit.

*Company Comment #11:*

**Section C, Insignificant Activities (page 9 of 22):** Please delete point 03-01 Line #2 Billet Pre-heater as it has been removed from the facility.

*Response:*

The Division concurs and has made the changes in the permit.

*Company Comment #12:*

**Section C, Insignificant Activities (page 9 of 22):** Please add the following points to the list of insignificant activities:

- Natural Gas-Fired Space Heaters – Eleven (11) 0.3 MMBTU/hr and One (1) 0.15 MMBTU/hr
- Die Reworking Area – MIG and TIG Welding Units
- Process Wastewater Treatment Above Ground Storage Tank (AST) -- 2,000 Gallons
- Hydraulic Oil Tank – 1,000 Gallons
- Graphite Lube Tank – 1,000 Gallons
- Waste Oil AST – 2,000 Gallons
- Natural Gas-Fired Space Heater – 3.5 MMBTU/hr

*Response:*

The Division concurs and has made the changes in the permit.